

**POLARIZED GAS ACCUMULATORS AND HEATING JACKETS  
AND ASSOCIATED GAS COLLECTION AND THAW METHODS AND  
POLARIZED GAS PRODUCTS**

Abstract of the Disclosure

Methods of collecting, thawing, and extending the useful polarized life of frozen polarized gases include heating a portion of the flow path and/or directly liquefying the frozen gas during thawing. A polarized noble gas product with an extended polarized life product is also included. Associated apparatus such as an accumulator and heating jacket for collecting, storing, and transporting polarized noble gases include a secondary flow channel which provides heat to a portion of the collection path during accumulation and during thawing.

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